STIC Search Report
EIC 2600

TO: Scott Beliveau Location: Knox 6A01 Art Unit : 2623 Friday, March 31, 2006 Case Serial Number: 09/773263	From: Virgil O. Tyler(ASRC) Location: EIC 2600 KNX-8B68 Phone: 571-272-8536 Virgil.Tyler@uspto.gov

Search Notes

Dear Examiner Beliveau,

      Attached are the search results (from commercial databases) for your case.

      Tags mark the patent/articles, which might be of interest. After you review all records including tagged and untagged records, if you wish to order the complete text of any record, please submit request(s) directly to the STIC-EIC 2600 Email Box or hand carry the request to the front desk of the respective EIC.

      Please call if you have any questions or suggestions. I have enclosed a Search Results Feedback Form to facilitate further comments or suggestions. Please take a few minutes to share with us your feedback.

Thanks

Virgil O. Tyler

Virgil O. Tyler,CLIN Assistant

Technical Information Specialist

ASRC Aerospace Corporation

EIC 2600

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           (c) 2006 NTIS, Intl Cpyrght All Rights Res
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           (c) 2006 Info.Sources Inc
File  434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
           (c) 1998 Inst for Sci Info
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           (c) 2002 The Gale Group
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           (c)2001 ProQuest Info&Learning
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           (c) 2006 ProQuest Info&Learning
File  248:PIRA 1975-2006/Mar W1
           (c) 2006 Pira International


Set     Items    Description
S1    5001078    DIGITAL()INFORMATION()STREAM?? OR AD?? OR ADVERTISEMENT?? -
                 OR COMMERCIAL?? OR PROGRAM??
S2      32615    (MULTI()MEDIA OR IMAG?()DATA OR PICTURE?? OR PHOTO?? OR PH-
                 OTOGRAPH?? OR JPEG OR GIF OR LOGO?? OR ICON?? OR PICOT()(GRAM-
                 ?? OR GRAPH??) OR SYMBOL?? OR BMP OR MOVING()IMAGE?? OR VIDEO-
                 ?? OR VIDEO(3N)DATA OR MOVIE?? OR GRAPHIC?? OR MPEG?)(3N)(SEG-
                 MENT?? OR SEQU
S3     232917    (MANY OR PLURAL? OR SEVERAL OR NUMEROUS OR MULTI OR MULTIP-
                 LE OR TWO OR 2)(3N)(S1 OR S2)
S4       1739    (ENCOD? OR CODE??)(3N)S3
S5       4366    (CONTINUE?? OR CONTINUOUS OR REPEAT??? OR REPETITIVE OR CO-
                 NSECUTIVE)(3N)(FRAME?? OR I()FRAME?? OR S4)
S6      21282    (BEGIN??? OR START??? OR INTIAL OR END??? OR LAST)(3N)(S5 -
                 OR SEGMENT?? OR SEQUENCE??)
S7        653    AU=(KUNKEL, G? OR KUNKEL G? OR PIETTE, S? OR PIETTE S? OR -
                 PERHAM, D? OR PERHAM D?)
S8     897982    VIDEO?? OR VOD OR STB OR SET()TOP()BOX OR SETTOP()BOX OR R-
                 ECEIVER?? OR GRAPHIC?()USER()INTERFACE?? OR GUI  OR VIDEO()ON-
                 ()DEMAND OR STT OR SET()TOP()TERMINAL?? OR (CATV OR SUBSCRIBER
                 OR CABLE)(3N)(BOX OR CONVERTER)
S9        452    (DISTRIBUTION()NETWORK?)(3N)(CABLE OR CATV)
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S10     206   S5(3N)(S8 OR S9)
S11       0   S10(3N)(BEGIN??? OR START??? OR INTIAL OR END??? OR LAST)
S12       0   S10 AND S7
S13    2788   S2(3N)(MANY OR PLURAL? OR SEVERAL OR NUMEROUS OR MULTI OR -
              MULTIPLE OR TWO OR 2)
S14     260   S13(3N)(ENCOD? OR CODE??)
S15       0   S14(3N)(CONTINUE?? OR CONTINUOUS OR REPEAT??? OR REPETITIVE
              OR CONSECUTIVE)(3N)(FRAME?? OR I()FRAME??)
S16       0   S14(3N)(BEGIN??? OR START??? OR INTIAL OR END??? OR LAST)(-
              3N)(SEGMENT?? OR SEQUENCE??)
S17     148   S14(10N)(S8 OR S9)
S18       0   S17 AND S7
S19      75   S17 NOT PY>2001
S20      37   RD   (unique items)
S21       0   S20(3N)(AD?? OR ADVERTISEMENT?? OR COMMERCIAL?? OR PROGRAM-
              ??)
```

20/3,K/1   (Item 1 from file: 2)

08230858   INSPEC Abstract Number: B2002-05-6135C-072, C2002-05-5260D-045
  Title: A rate control method with preanalysis for real-time MPEG-2 video coding
  Author(s): Yokoyama, Y.; Nogaki, S.
  Author Affiliation: Multimedia Res. Labs., NEC Corp., Kawasaki, Japan
  Conference Title: Proceedings 2001 International Conference on Image Processing (Cat. No.01CH37205)   Part vol.3   p.514-17 vol.3
  Publisher: IEEE, Piscataway, NJ, USA
  Publication   Date: 2001   Country   of   Publication: USA   3 vol.(1xx+1133+1108+1110) pp.
  ISBN: 0 7803 6725 1   Material Identity Number: XX-2001-02307
  U.S. Copyright Clearance Center Code: 0-7803-6725-1/01/$10.00
  Conference Title: Proceedings 2001 International Conference on Image Processing
  Conference Sponsor: IEEE Signal Process. Soc
  Conference Date: 7-10 Oct. 2001   Conference Location: Thessaloniki, Greece
  Language: English
  Subfile: B C
  Copyright 2002, IEE
  ...Abstract: bit allocation is adjusted to satisfy the VBV constraints. The method is evaluated by MPEG- **2 video encoding** experiments for **sequences** whose characteristics significantly change, such as scene changes or fade scenes. The experimental results show that the picture quality is improved by the proposed control method. The PSNR is 2 to 3 dB higher than the conventional method without a preanalysis in difficult scene periods. The method is very effective when a certain coding delay is allowed.

20/3,K/2   (Item 2 from file: 2)

08156159   INSPEC Abstract Number: B2002-02-6135C-153, C2002-02-5260D-112
  Title: Improved estimation of quantizer moderators in MPEG-2 rate control using a novel robust estimate and a family of exponential modulators
  Author(s): Grecos, C.; Jiang, J.
  Author Affiliation: Sch. of Comput., Univ. of Glamorgan, UK
  Journal: Proceedings of the SPIE – The International Society for Optical Engineering Conference Title: Proc. SPIE – Int. Soc. Opt. Eng. (USA) vol.4209   p.210-19
  Publisher: SPIE-Int. Soc. Opt. Eng,
  Publication Date: 2001 Country of Publication: USA
  CODEN: PSISDG ISSN: 0277-786X   ˋ
  SICI: 0277-786X(2001)4209L.210:IEQM;1-2
  Material Identity Number: C574-2001-154
  U.S. Copyright Clearance Center Code: 0277-786X/01/$15.00
  Conference Title: Multimedia Systems and Applications III
  Conference Sponsor: SPIE
  Conference Date: 6-8 Nov. 2000   Conference Location: Boston, MA, USA
  Language: English
  Subfile: B C
  Copyright 2002, IEE
  Abstract: The rate control phase in MPEG-2 is crucial for the **encoding**

of **video** **sequences** for **two** reasons. First, for timely delivery of **video** without buffer overflows or underflows and second for determining indirectly the encoded video quality through moderation of the quantization parameter on a macro-block basis. We propose a novel robust estimate which combines local activity estimates with the average activity of the previously encoded frame for improving the rate distortion performance of MPEG-2. We then propose a family of exponential modulators for reducing the over-normalization effect which occurs when the activity of the macro-block to be encoded is higher than the activity of the previously encoded frame. Extensive experiments show that the proposed low complexity schemes outperform MPEG-2 in terms of PSNR values for the same number of bits produced. We report increases up to 5 dB for the luminance component and up to 3.5 dB and 3 dB for the chrominance components respectively.

20/3,K/3   (Item 3 from file: 2)
DIALOG(R)File   2:INSPEC
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08098867   INSPEC Abstract Number: B2002-01-6135C-028, C2002-01-5260D-020
 Title: Data hiding in MPEG-2 bit stream domain
  Author(s): Caccia, G.; Lancini, R.
  Author Affiliation: CEFRIEL, Politecnico di Milano, Italy
  Conference Title: EUROCON'2001. International Conference on Trends in Communications. Technical Program, Proceedings (Cat. No.01EX439)   Part vol.2   p.363-4 vol.2
  Publisher: IEEE, Piscataway, NJ, USA
  Publication Date: 2001 Country of Publication: USA   2 vol. lviii+551 pp.
  ISBN: 0 7803 6490 2   Material Identity Number: XX-2001-01581
  U.S. Copyright Clearance Center Code: 0 7803 6490 2/2001/$10.00
  Conference Title: EUROCON'2001. International Conference on Trends in Communications. Technical Program, Proceedings
  Conference Sponsor: IEEE
  Conference Date: 4-7 July 2001   Conference Location: Bratislava, Slovakia
  Language: English
  Subfile: B C
  Copyright 2001, IEE
  ...Abstract: to introduce a method able to embed a certain amount of bits per frame in **MPEG - 2** **coded** **video** **sequences** , acting directly in the bit-stream domain. These bits could be used for any purpose for which the offered bandwidth could be wide enough.
  ...Identifiers: **MPEG - 2** **coded** **video** **sequences**

20/3,K/4   (Item 4 from file: 2)
DIALOG(R)File   2:INSPEC
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07990871   INSPEC Abstract Number: B2001-09-6135C-040, C2001-09-5260D-015
  Title: Digital watermarking applied to MPEG - 2   coded   video **sequences exploiting space and frequency masking**
  Author(s): Arena, S.; Caramma, M.; Lancini, R.
  Author Affiliation: CEFRIEL, Milano, Italy
  Conference Title: Proceedings 2000 International Conference on Image Processing (Cat. No.00CH37101)   Part vol.1   p.438-41 vol.1
  Publisher: IEEE, Piscataway, NJ, USA
  Publication Date: 2000 Country of Publication: USA   3 vol.(lxviii+1027+957+1000) pp.

Title: Digital watermarking applied to MPEG - 2   coded   video
sequences **exploiting space and frequency masking**

Abstract: This paper presents a watermarking technique for **MPEG - 2
coded   video   sequences** . We have chosen to work in the bit stream
domain in order to simplify the data embedding process in the case in which
the original data are already in a compressed form. Thanks to the
exploitation of an interleaved encoding technique and of some space and
frequency masking considerations, we have been able to reduce the BER of
the original algorithm. Some results underlining the improvements we have
been able to obtain thanks to our technique are shown.
   ...Identifiers: **MPEG - 2   coded   video   sequences** ; space masking;
frequency masking; bit stream domain; data embedding process; compressed
data; interleaved encoding; BER reduction; copyright protection

 20/3,K/5   (Item 5 from file: 2)
DIALOG(R)File   2:INSPEC

07789289   INSPEC Abstract Number: B2001-01-6135C-126, C2001-01-5260D-072
 Title: A new traffic model for MPEG encoded videos in ATM networks
Author(s): Derong Liu; Sara, E.I.
Author Affiliation: Dept. of Electr. Eng. & Comput. Sci., Illinois Univ.,
Chicago, IL, USA
Abstract: This paper presents a new traffic model for **MPEG   encoded
video   sequences** . **Two** second-order autoregressive (AR) processes are
used to model the autocorrelation structure. One AR process is used to
generate the mean frame size of the scenes to model the long range
dependence and another AR process is used to generate the fluctuations
within the scenes to model the short range dependence. The scene length
distribution is fitted using a geometric distribution. The first AR process
is therefore "stretched" unevenly according to the geometric distribution
to generate the mean frame size sequence. The two AR processes are not
simply superposed; instead, they are nested with each other. The parameters

of the AR processes are estimated from measurements of empirical video sequences. Simulation results show that the present model captures the autocorrelation structure in the empirical traces for both small and large lags. The MPEG traffic model presented in this paper is used to predict the queueing performance of single and multiplexed MPEG video sequences at an asynchronous transfer mode multiplexer. Comparison study shows that the present model provides accurate prediction for quality of service measures such as cell loss ratio under different traffic loads and various buffer sizes.

20/3,K/6   (Item 6 from file: 2)

07762434   INSPEC Abstract Number: B2000-12-6135C-193, C2000-12-5260D-094
   Title: Data hiding in the bit stream domain for MPEG - 2   coded   video sequences **exploiting space and frequency masking**
   Author(s): Arena, S.; Caramma, M.; Lancini, R.
   Author Affiliation: CEFRIEL, Milan, Italy
   Conference Title: 2000 IEEE International Conference on Acoustics, Speech, and Signal Processing. Proceedings (Cat. No.00CH37100) Part vol.4   p.1987-90 vol.4
   Publisher: IEEE, Piscataway, NJ, USA
   Publication Date: 2000 Country of Publication: USA   6 vol. lxxx+3906 pp.
   ISBN: 0 7803 6293 4   Material Identity Number: XX-2000-01777
   U.S. Copyright Clearance Center Code: 0 7803 6293 4/2000/$10.00
   Conference Title: Proceedings of 2000 International Conference on Acoustics, Speech and Signal Processing
   Conference Sponsor: IEEE; Signal Process. Soc
   Conference Date: 5-9 June 2000   Conference Location: Istanbul, Turkey
   Language: English
   Subfile: B C
   Title: Data hiding in the bit stream domain for MPEG - 2   coded   video sequences **exploiting space and frequency masking**
   Abstract: In this paper a data hiding technique for **MPEG - 2 coded video sequences** is presented. We have chosen to work in the bit stream domain in order to simplify the data embedding process in the case in which the original data are already in a compressed form. Thanks to the exploitation of an interleaved encoding technique and of some space and frequency masking considerations, we have been able to reduce the BER of the original algorithm. Some results underlining the improvements we have been able to obtain thanks to our technique are shown.
   ...Identifiers: **MPEG - 2 coded video sequences** ; frequency masking ; space masking; data embedding process; compressed form; interleaved encoding technique; BER; algorithm

20/3,K/7   (Item 7 from file: 2)

07709916   INSPEC Abstract Number: B2000-10-6135C-187, C2000-10-5260D-143
   Title: Joint bit-allocation for MPEG encoding **of** multiple video sequences **with minimum quality-variation**
   Author(s): Sorial, H.; Lynch, W.E.; Vincent, A.
   Author Affiliation: Dept. of Electr. & Comput. Eng., Concordia Univ., Montreal, Que., Canada

Conference Title: 2000 IEEE International Symposium on Circuits and Systems. Emerging Technologies for the 21st Century. Proceedings (IEEE Cat No.00CH36353)   Part vol.2   p.9-12 vol.2
    Publisher: Presses Polytech. Univ. Romandes, Lausanne, Switzerland
    Publication   Date: 2000 Country   of Publication: Switzerland   5 vol.(viii+813+768+769+768+760) pp.
    ISBN: 0 7803 5482 6   Material Identity Number: XX-2000-01653
    U.S. Copyright Clearance Center Code: 0 7803 5482 6/2000/$10.00
    Conference Title: ISCAS 2000 Geneva. 2000 IEEE International Symposium on Circuits and Systems. Emerging Technologies for the 21st Century. Proceedings
    Conference Sponsor: IEEE Circuits & Syst. Soc
    Conference   Date: 28-31   May   2000   Conference   Location: Geneva, Switzerland
    Language: English
    Subfile: B C
    Copyright 2000, IEE

    Title: Joint bit-allocation for MPEG encoding **of** multiple   video sequences **with minimum quality-variation**

    ...Abstract: video transmission over a single communication channel. We present a joint bit-allocation for MPEG **encoding** of **multiple video sequences** with a minimum quality-variation. The proposed method uses a picture-complexity measure based on the actual coding distortion in encoded frames, then allocates accordingly the available bits to explicitly reduce the variation in quality between the sequences. We compare the performance of the proposed method to independent encoding of the sequences at constant bit rates and to encoding with a joint bit-allocation scheme that uses a TM5-like picture-complexity measure. Results show that the proposed bit-allocation method is superior in terms of minimizing the quality variation between the video sequences and within the individual sequences. The method also provides better minimum picture quality than the other encoding schemes mentioned above. Applications of the joint bit-allocation method include multi-program transmission such as video on demand (VOD) services and digital TV broadcasting.

 20/3,K/8   (Item 8 from file: 2)
DIALOG(R)File   2:INSPEC
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07645939   INSPEC Abstract Number: B2000-08-6150M-067, C2000-08-5640-058
    Title: **Loss-resilient ATM protocol architecture for MPEG-2 video communications**
    Author(s): Cuenca, P.; Orozco-Barbosa, L.; Quiles, F.J.; Garrido, A.
    Author Affiliation: Dept. de Inf., Univ. de Castilla-La Mancha, Albacete, Spain

    ...Abstract: In this paper, we study the impact of cell losses on the quality of an **MPEG - 2 video sequence encoded** in a variable bit

rate mode. We introduce a set of control mechanisms at different levels of the protocol architecture to be used in MPEG-2-based video communications systems using ATM networks as their underlying transmission mechanism. Our results (using different video sequences) show the effectiveness to improve the video quality by using a structured set of control mechanisms to overcome for the loss of cells carrying VBR MPEG-2 video streams. We argue that in order to be able to create video systems able to cope with cell losses encountered in computer communications systems, a structured set of error-resilient protocol mechanisms is needed.

20/3,K/9   (Item 9 from file: 2)
DIALOG(R)File   2:INSPEC
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07522001   INSPEC Abstract Number: B2000-04-6210P-005, C2000-04-5260B-404
  Title: Dynamic bit rate conversion in multipoint video transcoding
  Author(s): Tzong-Der Wu; Jenq-Neng Hwang
  Author Affiliation: Dept. of Electr. Eng., Washington Univ., Seattle, WA, USA
  Conference Title: Proceedings 1999 International Conference on Image Processing (Cat. 99CH36348)   Part vol.3   p.817-21 vol.3
  Publisher: IEEE, Piscataway, NJ, USA
  Publication   Date: 1999 Country   of   Publication: USA   4 vol.(lxxix+676+977+952+449) pp.
  ISBN: 0 7803 5467 2   Material Identity Number: XX-2000-00003
  U.S. Copyright Clearance Center Code: 0 7803 5467 2/99/$10.00
  Conference Title: Proceedings of 6th International Conference on Image Processing (ICIP'99)
  Conference Sponsor: IEEE Signal Process. Soc.; IEICE
  Conference Date: 24-28 Oct. 1999   Conference Location: Kobe, Japan
  Language: English
  Subfile: B C
  Copyright 2000, IEE

  ...Abstract: re-allocation for video combining in a Multipoint Control Unit (MCU). To combine the pre- **encoded multiple video sequences** into a single sequence, the total bit-rate may overwhelm the outgoing channel bandwidth. Instead of multiplexing, we apply the transcoding approach to control the bit-rate and reallocate the bits in order to improve the pictures quality. To speed up the operation, a video transcoder usually reuses the decoded motion vectors to reencode the video sequences. Those decoded motion vectors also serve as a good indication of the picture activities. In this paper we uniformly distribute the bit-rate to the combined sequence and then use the motion information and the Lagrange optimization method to reallocate the bits to each sub-picture. The simulation results show that the PSNR distribution of the sub-sequence is more uniform and the video qualities of the active subsequences are much improved.

20/3,K/10   (Item 10 from file: 2)
DIALOG(R)File   2:INSPEC
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07497844   INSPEC Abstract Number: B2000-03-6135C-123, C2000-03-5260D-082
  Title: Joint rate control for MPEG- 2   encoding **of** multiple   video sequences
  Author(s): Ismaeil, I.; Kossentini, F.; Ward, R.
  Author Affiliation: Dept. of Electr. & Comput. Eng., British Columbia Univ., Vancouver, BC, Canada

Conference Title: Engineering Solutions for the Next Millennium. 1999
IEEE Canadian Conference on Electrical and Computer Engineering (Cat.
No.99TH8411)   Part vol.2   p.847-50 vol.2
  Editor(s): Meng, M.
  Publisher: IEEE, Piscataway, NJ, USA
  Publication   Date: 1999 Country   of   Publication: USA   3   vol.
(xxiii+1758) pp.
  ISBN: 0 7803 5579 2   Material Identity Number: XX-1999-02873
  U.S. Copyright Clearance Center Code: 0 7803 5579 2/99/$10.00
  Conference Title: Engineering Solutions for the Next Millennium. 1999
IEEE Canadian Conference on Electrical and Computer Engineering
  Conference Date: 9-12 May 1999   Conference Location: Edmonton, Alta.,
Canada
  Language: English
  Subfile: B C
  Copyright 2000, IEE

  Title: Joint rate control for MPEG- 2   encoding **of** multiple   video
sequences
  Abstract: This paper presents a joint rate control mechanism for MPEG- **2
  encoding** of **multiple   video   sequences** . Our method does not require
pre-processing of the **video** signals prior to encoding. The joint rate
control is implemented at the frame level, requiring the encoders to
communicate amongst each other only once per frame. Experimental results
show that our joint rate control yields better performance than other
existing methods. The results also show that our joint rate control coding
improves the picture quality of the complex video sequences by assigning
them more bits, and maintains a good balance in picture quality among the
sequences.

  20/3,K/11   (Item 11 from file: 2)
DIALOG(R)File   2:INSPEC
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07474753   INSPEC Abstract Number: B2000-02-6135C-126
  **Title: Time-varying image quality: modeling the relation between
instantaneous and overall quality**
  Author(s): Hamburg, R.; De Ridder, H.
  Author Affiliation: Oce-Technol. BV, Venlo, Netherlands
  Journal: SMPTE Journal   vol.108, no.11   p.802-11
  Publisher: Soc. Motion Picture & Telev. Eng,
  Publication Date: Nov. 1999 Country of Publication: USA
  CODEN: SMPJDF ISSN: 0036-1682
  SICI: 0036-1682(199911)108:11L.802:TVIQ;1-B
  Material Identity Number: S218-1999-011
  Language: English
  Subfile: B
  Copyright 2000, IEE

  ...Abstract: described that evaluated a model linking instantaneously
perceived quality to overall quality judgements of long **video** sequences.
Subjects evaluated a 3-min **MPEG - 2   video   coded   sequence** by means
of a continuous assessment procedure. Additionally, they rated overall
quality of segments of 10, 30, 60 and 180 seconds of the same video
material. The model describing the relation between the instantaneous and
overall quality ratings contains two main ingredients, viz. an
exponentially decaying weighting function, simulating the the
experimentally established recall advantage for the most recently presented
material (called the recency effect), and a non-linear averaging procedure

stressing the relative importance of strong impairments. The fit of the model to the experimental data resulted in a decaying time constant of 26 seconds and a power of 3 for the nonlinear weighting. These findings suggest that subjects rely predominantly on the worst events of a sequence when determining their overall quality judgement.

...Identifiers: **MPEG - 2 video coded sequence** ; continuous assessment procedure; exponentially decaying weighting function; non-linear averaging procedure; decaying time constant

20/3,K/12   (Item 12 from file: 2)
DIALOG(R)File   2:INSPEC
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07456201   INSPEC Abstract Number: B2000-02-6135C-038
 Title: Two-pass MPEG-2 variable-bit-rate encoding
  Author(s): Westerink, P.H.; Rajagopalan, R.; Gonzales, C.A.
  Author Affiliation: IBM Thomas J. Watson Res. Center, Yorktown Heights, NY, USA
  Journal: IBM Journal of Research and Development   vol.43, no.4   p. 471-88
  Publisher: IBM,
  Publication Date: July 1999 Country of Publication: USA
  CODEN: IBMJAE ISSN: 0018-8646
  SICI: 0018-8646(199907)43:4L.471:PMVR;1-H
  Material Identity Number: I057-1999-004
  U.S. Copyright Clearance Center Code: 0018-8646/99/$5.00
  Language: English
  Subfile: B
  Copyright 2000, IEE

  ...Abstract: bit-rate (VBR) output stream. In that case, it is possible to let the MPEG- 2 **encoder** produce a **video sequence** with a constant visual quality over time. This is in contrast to constant-bit-rate (CBR) systems, where the rate is constant but the visual quality varies with the coding difficulty. This paper describes a two-pass encoding system that has as its objective to produce an optimized VBR data stream in a second pass. In a first pass, the video sequence is encoded with CBR, while statistics concerning coding complexity are gathered. Next, the first-pass data is processed to prepare the control parameters for the second pass, which performs the actual VBR compression. In this off-line processing stage, we determine the target number of bits for each picture in the sequence, such that we realize the VBR objective. This means that the available bits are appropriately distributed over the different video segments such that constant visual quality is obtained. Finally, the encoding is performed again, but now under control of the processed first-pass data. During the running of this second pass, a run-time bit-production control mechanism monitors the accuracy and validity of the first-pass data, correcting errors in prediction and observing the buffer boundaries.

20/3,K/13   (Item 13 from file: 2)
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07452096   INSPEC Abstract Number: B2000-02-6135C-026, C2000-02-5260D-013
 Title: A study on camera work detection from MPEG-2 encoded data
  Author(s): Yang, Y.; Nakano, S.; Dosho, M.
  Author Affiliation: Toyama Prefectural Univ., Japan
  Conference Title: Joint Conference on Intelligent Systems 1999 (JCIS'98)
Part vol.4   p.246-9 vol.4

Abstract: This paper proposes a new method for directly detecting camera work from **MPEG - 2   video   encoded   data** . To handle **video   sequences** more easily, structured **video** is proposed, and the types of camera work and scene change are used to index the video contents in the structured video. According to the characteristics of MPEG-2 compression standards, the encoded video data is analyzed using the proposed method which is based on motion vectors. The major camera operations, including panning, tilting and zooming can be detected from MPEG-2 encoded video data, and high detection rates above 80% are achieved. Experimental results confirm the effectiveness of the method.

20/3,K/14   (Item 14 from file: 2)

  Title: Error resilient protocol architecture for the MPEG-2 video transmission over ATM networks
Author(s): Cuenca, P.; Garrido, A.; Quiles, F.; Orozco-Barbosa, L.
Author Affiliation: Dept. de Inf., Univ. de Castilla-La Mancha, Albacete, Spain

...Abstract: In this paper, we study the impact of cell losses on the quality of a **MPEG - 2   video   sequence   encoded** in a variable bit rate mode. We introduce a set of control mechanisms at different levels of the protocol architecture to be used in MPEG-2-based video communications systems using ATM networks as their underlying transmission mechanism. We argue that in order to be able to create video systems able to cope with cell losses encountered in computer communications systems, a structured set of error-resilient protocol mechanisms is needed. Our results (using different video sequences) show the effectiveness in improving the video quality by using a structured set of control mechanisms to overcome the loss of cells carrying VBR MPEG-2 video streams.

20/3,K/15   (Item 15 from file: 2)

07222920   INSPEC Abstract Number: B1999-05-6150M-047, C1999-05-5640-036
 **Title: An efficient protocol architecture for error-resilient MPEG-2 video
communications over ATM networks**

  Author(s): Cuenca, P.; Garrido, A.; Quiles, F.; Orozco-Barbosa, L.
  Author Affiliation: Dept. de Inf., Univ. de Castilla-La Mancha, Albacete,
Spain

    ...Abstract: In this paper, we study the impact of cell losses on the
quality of a **MPEG - 2   video   sequence   encoded** in a variable bit rate
mode. We introduce a set of control mechanisms at different levels of the
protocol architecture to be used in MPEG-2-based video communications
systems using ATM networks as their underlying transmission mechanism. Our
results (using different video sequences) show the effectiveness to improve
the video quality by using a structured set of control mechanisms to
overcome for the loss of cells carrying VBR MPEG-2 video streams. We argue
that in order to be able to create video systems able to cope with cell
losses encountered in computer communications systems, a structured set of
error-resilient protocol mechanisms is needed.

20/3,K/16   (Item 16 from file: 2)

06890765   INSPEC Abstract Number: B9805-6140C-707
 Title: VBR MPEG-2 encoded video over broadband networks
  Author(s): Zahir, S.S.; Alnuweiri, H.
  Author Affiliation: Dept. of Electr. & Comput. Eng., British Columbia
Univ., Vancouver, BC, Canada
  ...Abstract: impact of a selected set of the QoS parameters on a number
of VBR MPEG- **2   encoded   video** clips on each **segment** of such

internetworking. The QoS parameters used in our simulation include cell transmission delay, cell...

... systems. Objective and subjective results of our simulation show that the impact of the satellite **segment** on the **MPEG - 2 encoded video** quality is comparable to that of the fiber optics system and to that generated from the VBR MPEG-2 video encoding/decoding process.

20/3,K/17   (Item 17 from file: 2)
DIALOG(R)File   2:INSPEC
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06881221   INSPEC Abstract Number: B9805-6140C-250, C9805-5260B-147
 Title: **Embedding of digital watermarks in** video   sequences   encoded **to**
standard MPEG - 2
  Author(s): Hartung, F.; Girod, B.
  Author Affiliation: Lehrstuhl fur Nachrichtentech., Erlangen-Nurnberg Univ., Germany
  Journal: ITG-Fachberichte Conference Title: ITG-Fachber. (Germany)
no.144   p.257-62
  Publisher: VDE-Verlag,
  Publication Date: 1997 Country of Publication: Germany
  CODEN: ITGFEY ISSN: 0341-0196
  SICI: 0341-0196(1997)144L.257:EDWV;1-Z
  Material Identity Number: M523-97005
  Conference Title: Multimedia: Anwendungen, Technologie, Systeme
(Multimedia: Application, Technology, System)
  Conference Date: 29 Sept.-1 Oct. 1997   Conference Location: Dortmund,
Germany
  Language: German
  Subfile: B C
  Copyright 1998, IEE
 Title: **Embedding of digital watermarks in** video   sequences   encoded **to**
standard MPEG - 2

20/3,K/18   (Item 18 from file: 2)
DIALOG(R)File   2:INSPEC
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06738934   INSPEC Abstract Number: B9712-6140C-266, C9712-5260B-187
  Title: **An error concealment scheme for** MPEG - 2 coded video
 sequences
  Author(s): Tsekeridou, S.; Pitas, I.; Le Buhan, C.
  Author Affiliation: Dept. of Inf., Aristotelian Univ. of Thessaloniki, Greece
  Conference Title: Proceedings of 1997 IEEE International Symposium on Circuits and Systems. Circuits and Systems in the Information Age. ISCAS '97 (Cat. No.97CH35987)   Part vol.2   p.1289-92 vol.2
  Publisher: IEEE, New York, NY, USA
  Publication Date: 1997 Country of Publication: USA   4 vol. lxvi+2832
pp.
  ISBN: 0 7803 3583 X   Material Identity Number: XX97-01988
  U.S. Copyright Clearance Center Code: 0 7803 3583 X/97/$10.00
  Conference Title: Proceedings of 1997 IEEE International Symposium on Circuits and Systems. Circuits and Systems in the Information Age ISCAS '97
  Conference Date: 9-12 June 1997   Conference Location: Hong Kong
  Language: English
  Subfile: B C
  Copyright 1997, IEE

Title: **An error concealment scheme for** MPEG - 2 coded video sequences

Abstract: The problem of errors occurring in **MPEG - 2 coded video sequences** , caused by signal loss during transmission, is examined in this paper and an attempt is made to reconstruct the lost parts at each frame. The proposed error concealment scheme exploits reconstructed temporal information from previously decoded frames in order to conceal bitstream errors in all types of frames: I, P, or B, as long as temporal information is available. Since no such information is available for the first frame (I-frame) of an MPEG-2 coded sequence, another concealment technique is added to the proposed scheme, which uses spatial information from neighbouring macroblocks (MBs). The simulation results compared with other methods prove to be better judging from both PSNR values and the perceived visual quality of the reconstructed sequence. Its quality ameliorates with time.

...Identifiers: **MPEG - 2 coded video sequences** ; signal loss; image reconstruction; reconstructed temporal information; bitstream errors; spatial information; neighbouring macroblocks; PSNR values; perceived visual quality

20/3,K/19   (Item 19 from file: 2)
DIALOG(R)File   2:INSPEC
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06667214   INSPEC Abstract Number: B9710-6140C-026, C9710-5260B-012
  Title: **Optimal bit allocation for coding of video signals over ATM networks**

  Author(s): Jiann-Jone Chen; Lin, D.W.
  Author Affiliation: Dept. of Electron. Eng., Nat. Chiao Tung Univ., Hsinchu, Taiwan

  Abstract: We consider optimal **encoding** of **video sequences** for ATM networks. **Two** cases are investigated. In one, the **video** units are coded independently (e.g., motion JPEG), while in the other, the coding quality of a later picture may depend on that of an earlier picture (e.g., H.26x and MPEGx). The aggregate distortion-rate relationship for the latter case exhibits a tree structure, and its solution commands a higher degree of complexity than the former. For independent coding, we develop an algorithm which employs multiple Lagrange multipliers to find the constrained bit allocation. This algorithm is optimal up to a convex-hull approximation of the distortion-rate relations in the case of CBR (constant bit-rate) transmission. It is suboptimal in the case of VBR (variable bit-rate) transmission by the use of a suboptimal transmission rate control mechanism for simplicity. For dependent coding, the Lagrange-multiplier approach becomes rather unwieldy, and a constrained tree search method is used. The solution is optimal for both CBR and VBR transmission if the full constrained tree is searched. Simulation results are presented which confirm the superiority in coding quality of the encoding algorithms. We

also compare the coded video quality and other characteristics of VBR and CBR transmission.

20/3,K/20   (Item 20 from file: 2)

 Title: Segment processing of MPEG - 2   encoded   video   sequences
  Author(s): Hedtke, R.; Schnoll, M.
  Author Affiliation: Wiesbaden Specialist Coll., Germany

 Title: Segment processing of MPEG - 2   encoded   video   sequences
   ...Identifiers: **MPEG - 2 encoded video sequences** ; quality
requirements; interframe data compression; studio; long groups of pictures

20/3,K/21   (Item 21 from file: 2)

 Title: A data-parallel approach for real-time MPEG-2 video encoding
  Author(s): Akramullah, S.M.; Ahmad, I.; Liou, M.L.
  Author Affiliation: Dept. of Electr. & Electron. Eng., Hong Kong Univ. of Sci, & Technol., Kowloon, Hong Kong

   ...Abstract: parallelism within each frame, unlike some of the previous
approaches that employ multiple processing of **several** disjoint **video
 sequences** . This makes our **encoder** suitable for real-time applications
where the complete **video** sequence may not be present on the disk and may
become available on a frame-by-frame basis with time. The Express parallel
programming environment is employed as the underlying message-passing
system making our encoder portable across a wide range of parallel and
distributed architectures. The encoder also provides control over various
parameters such as the number of processors in each dimension, the size of
the motion search window, buffer management, and bitrate. Moreover, it has
the flexibility to allow the inclusion of fast and new algorithms for
different stages of the codec into the program, replacing current
algorithms. Comparisons of execution times, speedups, and frame encoding
rates using different numbers of processors are provided. An analysis of
frame data distribution among multiple processors is also presented. In

addition, our study reveals the degrees of parallelism and bottlenecks in the various computational modules of the MPEG-2 algorithm. We have used two motion estimation techniques and five different video sequences for our experiments. Using maximum parallelism by dividing one block per processor, an encoding rate higher than 30 frames/s has been achieved.

20/3,K/22   (Item 22 from file: 2)·
DIALOG(R)File   2:INSPEC
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06101972   INSPEC Abstract Number: B9512-6140C-487, C9512-5260B-342
  Title: A segmentation based scheme for very low bit-rate video coding
  Author(s): Bhaskaran, V.; Li, W.; Kunt, M.
  Author Affiliation: Hewlett-Packard Co., Palo Alto, CA, USA
  Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.2419   p.81-9
  Publication Date: 1995 Country of Publication: USA
  CODEN: PSISDG ISSN: 0277-786X
  U.S. Copyright Clearance Center Code: 0 8194 1766 1/95/$6.00
  Conference Title: Digital Video Compression: Algorithms and Technologies 1995
  Conference Sponsor: SPIE; Soc. Imaging Sci. & Technol
  Conference Date: 5-11 Feb. 1995   Conference Location: San Jose, CA, USA
  Language: English
  Subfile: B C
  Copyright 1995, IEE

  ...Abstract: been developed for use at the decoder. In this paper, we present simulation results for **several** typical **video   sequences   coded** at 16 kbits/sec and at 32 kbits/sec.

20/3,K/23   (Item 23 from file: 2)
DIALOG(R)File   2:INSPEC
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04408039   INSPEC Abstract Number: B89050963
  Title: Eye movements and coding of video sequences
  Author(s): Girod, B.
  Author Affiliation: MIT Media Lab., Cambridge, MA, USA
  Journal: Proceedings of the SPIE - The International Society for Optical Engineering   vol.1001, pt.1   p.398-405
  Publication Date: 1988 Country of Publication: USA
  CODEN: PSISDG ISSN: 0277-786X
  Conference Title: Visual Communications and Image Processing '88
  Conference Sponsor: SPIE
  Conference Date: 9-11 Nov. 1988   Conference Location: Cambridge, MA, USA
  Language: English
  Subfile: B

  ...Abstract: influence of eye movements on the perception of spatiotemporal impairments and their relevance for the **encoding** of **video   sequences** is discussed comprehensively. **Two** simple experiments show that it is neither permissable to generally blur the video signal in moving areas, nor is it justified to introduce more noise in moving areas. Eye movements slant the spatiotemporal frequency response of the HVS. The influence of eye movements on spatial and temporal masking is demonstrated by a computational model of visual perception. Smooth pursuit eye movements

reduce or eliminate temporal masking, but they increase spatial masking effects. A coding system is considered, that utilizes an eye tracker to pick up the point of regard of a single viewer. Such a system has an enormous potential for data compression, but the usefulness of the approach is limited because of the delay introduced by encoding and transmission.

20/3,K/24   (Item 1 from file: 8)

06336468   E.I. No: EIP03137413635
   Title: **A study on adaptive resolution control for low bit-rate multi-object coding**
  Author: Oami, Ryoma; Yamada, Akio; Miyamoto, Yoshihiro
  Corporate Source: Comp./Communication Media Research NEC Corporation, Kawasaki, Kanagawa 216-8555, Japan
  Conference Title: Proceedings of the 22nd Picture Coding Symposium: PCS-2001
  Conference Location: Seoul, South Korea Conference Date: 20010425-20010427
  E.I. Conference No.: 60525
  Source: 22nd Picture Coding Symposium 2001.
  Publication Year: 2001
  Language: English

  ...Abstract: combinations with the same resolution coarseness. The experimental results demonstrate that the proposed method stably **encodes video sequences** containing **multiple** objects at the Rec.601 resolution without serious quality degradation at a bit-rate as low as 2 Mbps, at which appropriate encoding quality could not be otherwise expected. 5 Refs.

20/3,K/25   (Item 2 from file: 8)

05970875   E.I. No: EIP01536788828
  Title: **H.263-based wireless video transmission in multicode CMDA systems**
  Author: Hueda, M.R.; Marques, C.A.
  Corporate Source: Lab. de Comunicaciones Digitales Universidad Nacional de Cordoba, Codoba (5000), Argentina
  Conference Title: IEEE 54th Vehicular Technology Conference (VTC FALL 2001)
  Conference Location: Atlantic City, NJ, United States   Conference Date: 20011007-20011011
  E.I. Conference No.: 58835
  Source: IEEE Vehicular Technology Conference v 1 n 54ND 2001. p 433-437 (IEEE cat n 01CH37211)
  Publication Year: 2001
  CODEN: IVTCDZ   ISSN: 0740-0551
  Language: English

  Identifiers: Wireless **video** transmission; Multicode direct **sequence code** division **multiple** access; Peak signal to noise ratio; **Video** quality

20/3,K/26   (Item 3 from file: 8)

05854477   E.I. No: EIP01296579994
  **Title: Improved estimation of quantizer moderators in MPEG-2 rate control
using a novel robust estimate and a family of exponential modulators**
  Author: Grecos, J.; Jiang, C.
  Corporate Source: School of Computing University of Glamorgan, Wales,
United Kingdom
  Conference Title: Multimedia Systems and Applications III
  Conference Location: Boston, MA, United States   Conference Date:
20001106-20001108
  E.I. Conference No.: 58235
  Source: Proceedings of SPIE - The International Society for Optical
Engineering v 4209 2001. p 210-219
  Publication Year: 2001
  CODEN: PSISDG   ISSN: 0277-786X
  Language: English

  Abstract: The Rate Control phase in MPEG-2 is crucial for the **encoding**
of **video**   **sequences** for **two** reasons. First, for timely delivery of
video   without buffer overflows or underflows and second for determining
indirectly the encoded video quality through moderation of the
quantization parameter on a macro-block basis. We propose a novel robust
estimate which combines local activity estimates with the average activity
of the previously encoded frame for improving the rate distortion
performance of MPEG-2. We then propose a family of exponential modulators
for reducing the "over-normalization" effect which occurs when the
activity of the macro-block to be encoded is higher than the activity of
the previously encoded frame. Extensive experiments show that the proposed
low complexity schemes outperform MPEG-2 in terms of PSNR values for the
same number of bits produced. We report increases up to 5 db for the
luminance component and up to 3.5 db and 3db for the chrominance components
respectively. 8 Refs.

  20/3,K/27   (Item 4 from file: 8)

05500211   E.I. No: EIP99035079432
  Title: Dynamic bit rate conversion in multipoint video transcoding
  Author: Wu, Tzong-Der; Hwang, Jenq-Neng
  Corporate Source: Univ of Washington, Seattle, WA, USA
  Conference Title: International Conference on Image Processing (ICIP'99)
  Conference Location: Kobe, Jpn   Conference Date: 19991024-19991028
  E.I. Conference No.: 56432
  Source: IEEE International Conference on Image Processing v 3 1999. p
817-821
  Publication Year: 1999
  CODEN: 85QTAW
  Language: English

  ...Abstract: re-allocation for video combining in a Multipoint Control
Unit (MCU). To combine the pre- **encoded**   **multiple**   **video**   **sequences**
into a single sequence, the total bit-rate may overwhelm the outgoing
channel bandwidth. Instead of multiplexing, we apply the transcoding
approach to control the bit-rate and reallocate the bits in order to
improve the pictures quality. To speed up the operation, a video transcoder
usually reuses the decoded motion vectors to reencode the video sequences.
Those decoded motion vectors also serve as a good indication of the picture

activities. In this paper, we uniformly distribute the bit-rate to the combined sequence and then use the motion information and the Lagrange optimization method to reallocate the bits to each sub-picture. The simulation results show that the PSNR distribution of the sub-sequence is more uniform and the video qualities of the active sub-sequences are much improved. (Author abstract) 8 Refs.

20/3,K/28   (Item 5 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)

04956605   E.I. No: EIP97083800245
   Title: **Optimal bit allocation for coding of video signals over ATM networks**
   Author: Chen, Jiann-Jone; Lin, David W.
   Corporate Source: Natl Chiao Tung Univ, Hsinchu, Taiwan
   Source: IEEE Journal on Selected Areas in Communications v 15 n 6 Aug 1997. p 1002-1015
   Publication Year: 1997
   CODEN: ISACEM   ISSN: 0733-8716
   Language: English

Abstract: We consider optimal **encoding** of **video sequences** for ATM networks. **Two** cases are investigated. In one, the **video** units are coded independently (e.g., motion JPEG), while in the other, the coding quality of a later picture may depend on that of an earlier picture (e.g., H.26x and MPEGx). The aggregate distortion-rate relationship for the latter case exhibits a tree structure, and its solution commands a higher degree of complexity than the former. For independent coding, we develop an algorithm which employs multiple Lagrange multipliers to find the constrained bit allocation. This algorithm is optimal up to a convex-hull approximation of the distortion-rate relations in the case of CBR (constant bit-rate) transmission. It is suboptimal in the case of VBR (variable bit-rate) transmission by the use of a suboptimal transmission rate control mechanism for simplicity. For dependent coding, the Lagrange-multiplier approach becomes rather unwieldy, and a constrained tree search method is used. The solution is optimal for both CBR and VBR transmission if the full constrained tree is searched. Simulation results are presented which confirm the superiority in coding quality of the encoding algorithms. We also compare the coded video quality and other characteristics of VBR and CBR transmission. (Author abstract) 18 Refs.

20/3,K/29   (Item 6 from file: 8)
DIALOG(R)File   8:Ei Compendex(R)

04455315   E.I. No: EIP96073248591
   Title: **Multistage interference cancellation in multirate DS/CDMA on a mobile radio channel**
   Author: Johansson, Ann-Louise; Svensson, Arne
   Corporate Source: Chalmers Univ of Technology, Gothenburg, Sweden
   Conference Title: Proceedings of the 1996 IEEE 46th Vehicular Technology Conference. Part 2 (of 3)
   Conference   Location: Atlanta,   GA,   USA Conference   Date: 19960428-19960501
   E.I. Conference No.: 44992
   Source: IEEE Vehicular Technology Conference v 2 1996. IEEE, Piscataway, NJ, USA,96CB35894. p 666-670
   Publication Year: 1996

Identifiers: Interference cancellation; Quadrature amplitude modulation;
Pilot **symbols** ; Rake **receiver** ; Direct **sequence**   **code** division
multiple access systems; Channel parameters; Channel estimation

20/3,K/30   **(Item 1 from file: 35)**
DIALOG(R)File 35:Dissertation Abs Online

01624702 ORDER NO: AADMQ-24133
FRACTAL CODING OF DISPLACED FRAME DIFFERENCE SIGNALS
  Author: FERRARIO, NINO
  Degree: M.A.SC.
  Year: 1997
  Corporate Source/Institution: SIMON FRASER UNIVERSITY (CANADA) (0791)
  Source: VOLUME 36/03 of MASTERS ABSTRACTS.
           PAGE 826. 122 PAGES
  ISBN: 0-612-24133-5

     ...orthogonal basis IFS coders are compared to that of a reference
discrete cosine transform (DCT) **coder** for **two** standard **video**
sequences .
     The simulation results indicate that affine-transform-based fractal
coders are feasible for direct fractal coding of displaced frame difference
signals. The peak signal-to-noise ratio (PSNR) performance of these coders
was as good or better than the reference DCT-based coder for the two
sequences tested. The OBIFS coders, however, are not feasible for direct
fractal coding of displaced frame difference signals. The reference
DCT-based coder provided much better performance for all sequences tested.

20/3,K/31   **(Item 1 from file: 65)**
DIALOG(R)File 65:Inside Conferences

02434524   INSIDE CONFERENCE ITEM ID: CN025436648
Investigation of subjective and objective picture **quality for**   MPEG - 2
 coded   video   sequences
  Schertz, A.; Ravel, M.; Lubin, J.
  CONFERENCE: Fernseh-und Kinotechnische Gesellschaft-Jahrestagung; 18
  JAHRESTAGUNG-FKTG, 1998; VOL 18; NUMBER COM P: 528-543
  FKTG, 1998
  LANGUAGE: German DOCUMENT TYPE: Conference Papers
    CONFERENCE SPONSOR: Fernseh-und Kinotechnische Gesellschaft
    CONFERENCE LOCATION: Erfurt, Germany
    CONFERENCE DATE: May 1998 (199805) (199805)

Investigation of subjective and objective picture **quality for**   MPEG - 2
 coded   video   sequences

20/3,K/32   **(Item 1 from file: 95)**
DIALOG(R)File 95:TEME-Technology & Management

01020773 E96096555062
Approaches to wireless transmission of low bit rate video

(Verfahren zur drahtlosen Videouebertragung mit niedriger Bit-Rate)
Mermelstein, P; Khansari, M
INRS Telecommunications, Verdun, CDN
Wireless Technol. and Services for Cellular and Personal Communication
Services, Philadelphia, USA, Oct 25-26, 19951996
Document type: Conference paper   Language: English
Record type: Abstract

...DESCRIPTORS: COMMUNICATION ENGINEERING; ERROR CORRECTION; **VIDEO**
SIGNALS; IMAGE **SEQUENCES** ; **CODE** DIVISION **MULTIPLE** ACCESS; **CODE**
DIVISION MULTIPLEXING

 20/3,K/33   **(Item 2 from file: 95)**
DIALOG(R)File 95:TEME-Technology & Management
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01013363 E96070981317
Schnittbearbeitung von MPEG-2-codierten Videosequenzen
(Editing of **MPEG - 2   coded   video - sequences**)
Hedtke, R; Schnoell, M
FH Wiesbaden, D
Fernseh- und Kinotechnik, v50, n7, pp367-373, 1996
Document type: journal article   Language: German
Record type: Abstract
ISSN: 1430-9947

(Editing of **MPEG - 2   coded   video - sequences**)

 20/3,K/34   **(Item 3 from file: 95)**
DIALOG(R)File 95:TEME-Technology & Management
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00924490 E95090944233
Proposed UPC meeting both packet video and network goals
(Die vorgeschlagene Parameterkontrolle beinhaltet beides Paket-Video- und
Netzwerk-Ziele)
Tye, BJ; Dagiuklas, A; Ghanbari, M
Univ. of Essex, Colchester, GB
IEE Proceedings - Communications, v142, n4, pp227-232, 1995
Document type: journal article   Language: English
Record type: Abstract
ISSN: 1350-2425

ABSTRACT:
...both peak bit rate (PBR) and mean bit rate (MBR) of an H.261 type **video**
  codec . **Seve**ral video sequences with diverse traffic
characteristics have been used to evaluate their quality of service (QOS)
under the proposed UPC.

 20/3,K/35   **(Item 4 from file: 95)**
DIALOG(R)File 95:TEME-Technology & Management
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00755443 I93115488320
**Statistical characterization and block-based modeling of motion-adaptive
coded video**
(Statistische Charakterisierung und blockbasierende Modellierung der

bewegungsadaptiv codierten Videosignale)
Jabbari, B; Yegenoglu, F; Kou, Y; Zafar, S; Zhang, Y-Q
Dept. of Electr. Eng., George Mason Univ., Fairfax, VA, USA
IEEE Transactions on Circuits and Systems for Video Technology, v3, n3,
pp199-207, 1993
Document type: journal article Language: English
Record type: Abstract
ISSN: 1051-8215

IDENTIFIERS: BLOCK BASED MODELING; MOTION ADAPTIVE CODED VIDEO; FULL MOTION
VIDEO SOURCES; VARIABLE BIT RATE CODING; **VIDEO** COMPRESSION ALGORITHM;
MPEG SYNTAX; BIT STREAM DEFINITION; COMPOSITE MODEL; **MULTIPLE**
AUTOREGRESSIVE MODELS; **VIDEO** **SEQUENCE** ; CELL GENERATION PROCESS; **VIDEO**
 CODECS ; STATISTICAL MULTIPLEXERS; Blockcode; Videosignal

 20/3,K/36 **(Item 1 from file: 144)**
DIALOG(R)File 144:Pascal
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 14774229 PASCAL No.: 00-0453537
 Joint tracking of region-based and mesh models of 2D VOPs in video
sequences
 Visual communications an dimage processing 2000 : Perth, 20-23 June 2000
 BENOIS-PINEAU J; VERBERT P; BARBA D
 NGAN King N, ed; SIKORA Thomas, ed; MING-TING SUN, ed
 SEI/IVC EP CNRS 2018 EPUN/ University of Nantes, La Chantrerie, rue Ch.
PAUC, BP 6060, 44306, Nantes, France
 International Society for Optical Engineering, Bellingham WA, United
States
 Visual communications and image processing. Conference (Perth AUS)
2000-06-20
 Journal: SPIE proceedings series, 2000, 4067 (p.1) 1002-1010
 Language: English·

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English Descriptors: Joints; **Encoding** ; **Video techniques** ; Image
 sequences ; **Two** dimensional model; Target tracking; Hierarchized
 structure; Mesh method; Triangulation; **Video** signals; Experimental
 study

 20/3,K/37 **(Item 2 from file: 144)**
DIALOG(R)File 144:Pascal
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 14340543 · PASCAL No.: 99-0549570
 Two-pass MPEG-2 variable-bit-rate encoding : Digital multimedia
technology
 WESTERINK P H; RAJAGOPALAN R; GONZALES C A
 IBM Research Division, Thomas J. Watson Research Center, P.O. Box 218,
Yorktown Heights, New York 10598, United States; Lucent Technologies, 1160
Route 22E, Room 227B, Bridgewater, New Jersey 08807, United States; IBM
Thomas J. Watson Research Center, Yorktown Heights, New York 10598, United
States
 Journal: IBM journal of research and development, 1999, 43 (4) 471-488
 Language: English

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... bit-rate (VBR) output stream. In that case, it is possible to let the MPEG- **2** **encoder** produce a **video** **sequence** with a constant visual quality over time. This is in contrast to constant-bit-rate (CBR) systems, where the rate is constant but the visual quality varies with the coding difficulty. This paper describes a two-pass encoding system that has as its objective to produce an optimized VBR data stream in a second pass. In a first pass, the video sequence is encoded with CBR, while statistics concerning coding complexity are gathered. Next, the first-pass data is processed to prepare the control parameters for the second pass, which performs the actual VBR compression. In this off-line processing stage, we determine the target number of bits for each picture in the sequence, such that we realize the VBR objective. This means that the available bits are appropriately distributed over the different video segments such that constant visual quality is obtained. To be able to quantify the constant visual quality, perceptual experiments are described and a practical model is fitted to them. Exceptional cases such as scene changes and fades are detected and dealt with appropriately. We also ensure that the second-pass compression process does not violate the decoder buffer boundaries. Finally, the encoding is performed again, but now under control of the processed first-pass data. During the running of this second pass, a run-time bit-production control mechanism monitors the accuracy and validity of the first-pass data, correcting errors in prediction and observing the buffer boundaries. Results are compared to CBR operation.

```
Set     Items   Description
S1      854866  DIGITAL()INFORMATION()STREAM?? OR AD?? OR ADVERTISEMENT?? -
                OR COMMERCIAL?? OR PROGRAM??
S2        7380  (MULTI()MEDIA OR IMAG?()DATA OR PICTURE?? OR PHOTO?? OR PH-
                OTOGRAPH?? OR JPEG OR GIF OR LOGO?? OR ICON?? OR PICOT()(GRAM-
                ?? OR GRAPH??) OR SYMBOL?? OR BMP OR MOVING()IMAGE?? OR VIDEO-
                ?? OR VIDEO(3N)DATA OR MOVIE?? OR GRAPHIC?? OR MPEG?)(3N)(SEG-
                MENT?? OR SEQU
S3         646  (MANY OR PLURAL? OR SEVERAL OR NUMEROUS OR MULTI OR MULTIP-
                LE OR TWO OR 2)(3N)S2
S4          72  (ENCOD? OR CODE??)(3N)S3
S5        3346  (CONTINUE?? OR CONTINUOUS OR REPEAT??? OR REPETITIVE OR CO-
                NSECUTIVE)(3N)(FRAME?? OR I()FRAME??)
S6          67  (BEGIN??? OR START??? OR INTIAL OR END??? OR LAST)(3N)S5
S7          65  AU=(KUNKEL, G? OR KUNKEL G? OR PIETTE, S? OR PIETTE S? OR -
                PERHAM, D? OR PERHAM D?)
S8      521569  VIDEO?? OR VOD OR STB OR SET()TOP()BOX OR SETTOP()BOX OR R-
                ECEIVER?? OR GRAPHIC?()USER()INTERFACE?? OR GUI  OR VIDEO()ON-
                ()DEMAND OR STT OR SET()TOP()TERMINAL?? OR (CATV OR SUBSCRIBER
                OR CABLE)(3N)(BOX OR CONVERTER)
S9         212  (DISTRIBUTION()NETWORK?)(3N)(CABLE OR CATV)
S10          0  S4(3N)S5
S11          0  S4 AND S5
S12          1  S6(3N)(S8 OR S9)
S13         13  S6 AND (S8 OR S9)
S14          4  S7 AND IC=H04N?
S15          4  S14 NOT S13
```

DIALOG(R)File 350:Derwent WPIX

008456188   **Image available**
WPI Acc No: 1990-343188/199046
XRPX Acc No: N90-262446
  Video system with adaptive inter-frame prediction coding - discards frames to impose upper limit on transmission bit-rate from rapidly moving images
Patent Assignee: NEC CORP (NIDE)
Inventor: TANOI T
Number of Countries: 006 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 397206	A	19901114	EP 90108951	A	19900511	199046	B
JP 2298184	A	19901210	JP 89117242	A	19890512	199104	
CA 2016641	A	19901112				199106	
JP 3006184	A	19910111	JP 89139224	A	19890602	199108	
US 5121202	A	19920609	US 90522538	A	19900511	199226	
EP 397206	A3	19930113	EP 90108951	A	19900511	199346	
CA 2016641	C	19950711	CA 2016641	A	19900511	199535	
EP 397206	B1	19970730	EP 90108951	A	19900511	199735	
DE 69031145	E	19970904	DE 631145	A	19900511	199741	
			EP 90108951	A	19900511		

Priority Applications (No Type Date): JP 89139224 A 19890602; JP 89117242 A
  19890512
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 397206	A				

    Designated States (Regional): DE GB IT

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5121202	A		16	H04N-007/12	
EP 397206	B1 E		22	H04N-007/32	

    Designated States (Regional): DE GB IT

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 69031145	E			H04N-007/32	Based on patent EP 397206
CA 2016641	C			H04N-007/12	

...Abstract (Basic): on transmission rate. In a simple system, transmission rate may be limited by discarding similarly **repeating   frames** at transmitting **end** , with restoration at **receiver** by repeatedly displaying a previous frame, which results in motion jerkiness. Two motion vectors and predicted error signal are derived and transmitted through the system.
    At the receiver, discarded frame positions are filled with recovered earlier frames, which are motion-compensated if required following a decision of second motion vector validity. The decision circuit calculates absolute values of predicted error signal of frame period following a discarded frame.
    ADVANTAGE - Reduced jerkiness. (17pp Dwg.No.1/8)

13/3,K/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

017264611   **Image available**
WPI Acc No: 2005-588236/200560
  Camera phone for compensating a hand trembling motion
Patent Assignee: MTEK VISION CO LTD (MTEK-N)
Inventor: SO H Y
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
KR 2005023549	A	20050310	KR 200359860	A	20030828	200560	B

Priority Applications (No Type Date): KR 200359860 A 20030828
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
KR 2005023549	A			H04N-005/232	

Abstract (Basic):
...   A camera member(200) captures a **video** image of an object. A
memory member(300) stores information on the **video** image captured by
the camera member. A display member(500) displays the **video** image. A
CPU(Central Processing Unit)(400) transmits information on the **video**
image to another communication device by a wireless communication
network. An interfacing integrated member(100) receives the **video**
image provided by the camera member, produces information on the **video**
 image, provides the information to the memory member and the CPU and
displays the captured **video** image displayed to the display member.
The interfacing integrated member compares **video** images of two or
more frames continuously transmitted from the camera member, detects a
motion vector and shifts the **start** point of the **continued frame**
into a predetermined moving value in order to correct the motion vector
when the size of the motion vector is within a predetermined threshold
boundary.
        DwgNo 1/1

 13/3,K/2   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

015266782   **Image available**
WPI Acc No: 2003-327711/200331
XRPX Acc No: N03-261992
  **Digital receiver for radio broadcast application, samples digital
   signal to extract sequence of consecutive bits and count indicative of
   time of detection of frame start is initiated by cyclic prefix correlator**
Patent Assignee: AGERE SYSTEMS INC (AGER-N)
Inventor: CUPO R L; KARIM M R; SARRAF M; ZARRABIZADEH M
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6501810	B1	20021231	US 98170174	A	19981013	200331	B

Priority Applications (No Type Date): US 98170174 A 19981013
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6501810	B1		11	H04L-007/00	

Digital receiver **for radio broadcast application, samples digital
signal to extract sequence of consecutive bits and count indicative of
time of detection of frame start is initiated by cyclic prefix correlator**

Abstract (Basic):
...   frame start is initiated by a cyclic prefix correlator (402) to
   detect the time of **frame   start** within **consecutive** bit sequence. A
   synchronizer generates a pointer indicating time of arrival of future
   frame start, based on the count.

13/3,K/3   (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

014122487   **Image available**
WPI Acc No: 2001-606699/200169
XRPX Acc No: N01-452814
  **A method of transmitting real-time data for a communication link
  transmitting non-real-time data includes transmitting non-real-time data
  to an indicated offset, transmitting a real-time data capsule at the
  offset, and repeating**
Patent Assignee: DATA RACE INC (DATA-N)
Inventor: OLIVER D C
Number of Countries: 001   Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6292484	B1	20010918	US 9749182	A	19970611	200169	B
			US 98100778	A	19980610		

Priority Applications (No Type Date): US 9749182 P 19970611; US 98100778 A
  19980610
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6292484	B1		23	H04J-003/24	Provisional application US 9749182

Abstract (Basic):
...   fixed length capsule of the real-time data is transmitted at the
   offset (60) and **repeated** until the **frame   ends** (66).
...   c) modems including a transmitter and a **receiver** for real-time
   data
      (d) and computer programs for implementing methods of transmitting
   and receiving real-time data.
      USE - The method of transmitting real-time data is used for a
   communication link transmitting non-real-time data.
      ADVANTAGE - The method allows transmission of real-time data, such
   as digitized speech, in regular data frames through a modem with
   minimal impact on performance. Low latency and overhead is achieved and
   no special hardware is required.
      DESCRIPTION OF DRAWING(S) - The figure shows a flow chart of a
   method of transmitting real-time data.
      pp; 23 DwgNo 4/13

13/3,K/4   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

013507043   **Image available**
WPI Acc No: 2000-678987/200066
XRPX Acc No: N00-502645

Operation emulation method of graphic processor for general purpose computer e.g. video game system, involves skipping execution of other subset of commands to partially render frame, when evaluation is negative

Patent Assignee: CONNECTIX CORP (CONN-N)
Inventor: GILES A S
Number of Countries: 021   Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200039693	A1	20000706	WO 99US30853	A	19991228	200066	B
US 6115054	A	20000905	US 98222461	A	19981229	200066	
EP 1141850	A1	20011010	EP 99967601	A	19991228	200167	
			WO 99US30853	A	19991228		
JP 2002533837	W	20021008	WO 99US30853	A	19991228	200281	
			JP 2000591521	A	19991228		

Priority Applications (No Type Date): US 98222461 A 19981229
Patent Details:

Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200039693 A1 E   48 G06F-015/00
    Designated States (National): JP
    Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
    MC NL PT SE
US 6115054   A   G06F-015/00
EP 1141850   A1 E   G06F-015/00   Based on patent WO 200039693
    Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
    LU MC NL PT SE
JP 2002533837 W   57 G06T-001/00   Based on patent WO 200039693

Abstract (Basic):
...   The ability of general purpose computer to generate **video**
    frame fully synchronized with target system is evaluated. All the
    commands in command cache are fully executed, when the evaluation is
    positive, to fully render the frame. The subset of commands in the
    command cache is executed and execution of other subset of commands is
    skipped to partially render the frame when evaluation is negative.
...   partially render a frame represented by commands and stored in
    VRAM (120), on detection of **frame   end** . Evaluation is **repeated**
    each time when **frame   end** is detected. Successive evaluations
    generate different evaluations so that frames are fully rendered while
    other...

...For emulating operation of graphics processor in general purpose
    computer system e.g. **video** game system...

...Execution of clipped drawing commands occupies great percent of
    rendering time of average **video** frame, and by skipping the commands,
    the frame is rendered quickly minimizing unintended collateral effects
    on subsequent frames.
       DESCRIPTION OF DRAWING(S) - The figure shows the conceptual control
    flow diagram of operation emulation method of graphic processor.
       VRAM (120)
       pp; 48 DwgNo 4/11
...Title Terms: **VIDEO** ; GAME; SYSTEM; SKIP; EXECUTE; SUBSET; COMMAND;
    RENDER; FRAME; EVALUATE; NEGATIVE

13/3,K/5   (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

012751057   **Image available**
WPI Acc No: 1999-557174/199947
XRPX Acc No: N99-413047
   Video **signal converter for monitor of e.g. high-resolution TV, computer**
   - deletes identical first frames or identical last   frames **in 6-** frame
   sequences, and repeats **one** frame **in each remaining 4-frame sequence**
Patent Assignee: FAROUDJA LAB INC (FARO-N)
Inventor: FAROUDJA Y C
Number of Countries: 002 Number of Patents: 002
Patent Family:
Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11243507	A	19990907	JP 98352925	A	19981211	199947	B
US 6111610	A	20000829	US 97988722	A	19971211	200043	
			US 97993547	A	19971218		

Priority Applications (No Type Date): US 97993547 A 19971218; US 97988722 A
   19971211
Patent Details:
Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11243507	A		13	H04N-005/253	
US 6111610	A			H04N-007/01	CIP of application US 97988722

   Video **signal converter for monitor of e.g. high-resolution TV, computer**
   . . .

   ...deletes identical first frames or identical last   frames **in 6-** frame
   sequences, and repeats **one** frame **in each remaining 4-frame sequence**

   ...Abstract (Basic): NOVELTY - A line receiving unit receives a **video**
     signal, reproduced from a film, according to the rate of 60 to 120
     hertz frame. A frame repeater and a displacer output a 120 hertz **video**
     signal by which a 3-2 pull down pattern is maintained as a 6-4...

   ...4-sequence frame is repeated. DETAILED DESCRIPTION - An INDEPENDENT
     CLAIM is also included for a **video** signal conversion...

   ...DRAWING(S) - The figure shows the timing information diagram for
     explaining the operation of a **video** signal converter.
        Dwg.2/9
Title Terms: **VIDEO** ; SIGNAL; CONVERTER; MONITOR; HIGH; RESOLUTION;
   TELEVISION; COMPUTER; DELETE; IDENTICAL; FIRST; FRAME; IDENTICAL; LAST;
   FRAME; FRAME; SEQUENCE; REPEAT; ONE; FRAME; REMAINING; FRAME; SEQUENCE

13/3,K/6   (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

012644700   **Image available**
WPI Acc No: 1999-450805/199938
XRPX Acc No: N99-337286
   Data transmission system for connecting personal computers to
   communication apparatus for internet access - has switching unit to
   selectively feed data from first-in first-out memory and null data
   generator whose timings are controlled by timing generator corresponding
   to data interruption to be made
Patent Assignee: SHARP KK (SHAF)

Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11187074	A	19990709	JP 97348326	A	19971217	199938	B
JP 3462061	B2	20031105	JP 97348326	A	19971217	200377	

Priority Applications (No Type Date): JP 97348326 A 19971217
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11187074	A		36	H04L-013/08	
JP 3462061	B2		37	H04L-013/08	Previous Publ. patent JP 11187074

...Abstract (Basic): generator receives a null transmitting command to send
     out null data. Sending of the idle **frame** is **started** and **continued**
     subsequently for predetermined timing, set at the initiation time. When
     it is judged with reference...

...is set to M. The null skip command of parameter (N-M) is published. A
     receiver is controlled to interrupt transmission of data to FIFO
     memory temporarily until the time which requires signal from receiving
     timing generating unit in order to receive the null data of length
     (N-M) after the null skip command from CPU, is elapsed. The initiation
     position is set as the Kth position. Since the length is set to (N),
     reading of the data from FIFO memory is interrupted at position (K-1).
     If a null skip command of parameter (N) is published, the null data of
     length (N) is canceled. A frame check inspection unit is provided to
     inspect the frame check of the received frame. A detour unit is
     provided to bypass the frame check inspection unit and write the
     received data in FIFO memory.
          USE - For connection of computer to communication apparatus such as
     personal handy system (PHS), portable telephone for internet access.
          ADVANTAGE - While sending null data, CPU can perform other
     processes, hence the ability of the load of CPU in communication is
     lightened. DESCRIPTION OF DRAWING(S) - The figure shows schematic block
     diagram of communication apparatus.
          Dwg.1/26

 13/3,K/7   (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

010554545   **Image available**
WPI Acc No: 1996-051498/199606
XRPX Acc No: N96-043141
   Selection method for key-frame representing sequence of images in video
   image - automating temporal segmentation of video **sequences into**
   individual camera shots by distinguishing between sharp breaks and
   gradual transitions implemented by special effects
Patent Assignee: INST SYSTEMS SCI (SYST-N); UNIV SINGAPORE NAT (UYSI-N);
   SMOLIAR S W (SMOL-I); WU J H (WUJH-I); ZHANG H J (ZHAN-I)
Inventor: SMOLIAR S W; WU J H; ZHANG H; ZHANG H J
Number of Countries: 004 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 690413	A2	19960103	EP 95304387	A	19950622	199606	B
EP 690413	A3	19960731	EP 95304387	A	19950622	199639	
JP 8237549	A	19960913	JP 95182229	A	19950627	199647	
US 5635982	A	19970603	US 94266216	A	19940627	199728	

Priority Applications (No Type Date): US 94266216 A 19940627
Patent Details:

Patent No   Kind Lan Pg   Main IPC   Filing Notes
EP 690413   A2 E 18 G06T-007/20
    Designated States (Regional): DE GB
JP 8237549   A   16 H04N-005/262
US 5635982   A   21 H04N-005/76
EP 690413   A3   G06T-007/20

    Selection method for key-frame representing sequence of images in video
    image...

...**automating temporal segmentation of** video **sequences into individual
    camera shots by distinguishing between sharp breaks and gradual
    transitions implemented by special effects**

...Abstract (Basic): The method for extracting key-frames in a **video**
    image involves determining a difference metric or a set of difference
    metrics having corresp thresholds...

...if the difference value (Da) exceeds a predetermined key frame threshold
    (Td). The process is **continued** until the **end** **frame** is reached,
    such that key frames for indexing sequences of images are identified
    and captured...
...USE/ADVANTAGE - Automatic **video** content parser for parsing **video**
    shots such that they are represented in native media and retrievable
    based on visual contents, for **video** indexing, archiving, editing and
    production etc. Enables detection of camera shots implemented by sharp
    break and gradual transitions implemented by special effects e.g
    dissolve, wipe, fade-in and fade-out.
        Dwg.2/5
...Title Terms: **VIDEO ;**

    13/3,K/8   (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

009426113   **Image available**
WPI Acc No: 1993-119629/199315
Related WPI Acc No: 1990-299965
XRPX Acc No: N93-091316
    Video **mixing simulator system with improved audio signal** – includes
    video **disc storing outputs of several TV cameras recorded in interleaved
    format, with 3 sequences of frames with blocks of 20 frames of each
    sequence being cyclically interleaved**
Patent Assignee: BRITISH BROADCASTING CORP (BRBC)
Inventor: ALLEN F J D; FINNEY A B
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No   Kind Date   Applicat No   Kind Date   Week
GB 2260463   A   19930414 GB 904597   A   19900301 199315 B
                             GB 9224798   A   19921126

Priority Applications (No Type Date): GB 894906 A 19890303
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
GB 2260463   A   9 H04N-005/85   Derived from application GB 904597
    Video **mixing simulator system with improved audio signal...**

...**includes** video **disc storing outputs of several TV cameras recorded in
    interleaved format, with 3 sequences of frames with blocks of 20 frames**

of each sequence being cyclically interleaved

...Abstract (Basic): The interactive **video** mixing simulator system
includes a **video** disc having recorded thereon a number of **video**
signals in a number of sequences in interleaved format, a **video** disc
player for replaying the recorded images such that one of the
interleaved sequences is...

...a number of frames from each sequence. The first time or field of each
block **repeats** the **last frame** or field of the preceding block in
the same sequence.
USE/ADVANTAGE - For laser disc, or CD used in TV control gallery.
Reduces noise pulse rate in audio channel to point so that clicks can
be adequately disguised.
Dwg.1/2
Title Terms: **VIDEO ;**

13/3,K/9   (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

009214512   **Image available**
WPI Acc No: 1992-341932/199242
Related WPI Acc No: 2000-001116
XRPX Acc No: N92-260793
  **Data communication appts. with error correction communication function
  for facsimile - requests retransmission when receive buffers are full and
  printing requires more than normal flow control timing**
Patent Assignee: CANON KK (CANO)
Inventor: NISHII T
Number of Countries: 007 Number of Patents: 010
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 508659	A2	19921014	EP 92302754	A	19920327	199242	B
JP 4301940	A	19921026	JP 9165829	A	19910329	199249	
EP 508659	A3	19930303	EP 92302754	A	19920327	199349	
US 5416785	A	19950516	US 92858411	A	19920327	199525	
EP 508659	B1	19990922	EP 92302754	A	19920327	199943	
			EP 99200251	A	19920327		
DE 69230012	E	19991028	DE 630012	A	19920327	199951	
			EP 92302754	A	19920327		
ES 2136073	T3	19991116	EP 92302754	A	19920327	200001	
JP 2000349857	A	20001215	JP 9165829	A	19910329	200104	
			JP 2000122570	A	19910329		
JP 3155769	B2	20010416	JP 9165829	A	19910329	200124	
JP 3428941	B2	20030722	JP 9165829	A	19910329	200350	
			JP 2000122570	A	19910329		

Priority Applications (No Type Date): JP 9165829 A 19910329; JP 2000122570
  A 19910329
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 508659	A2	E	7	H04L-001/00	
Designated States (Regional): DE ES FR GB IT					
JP 4301940	A		4	H04L-001/18	
EP 508659	A3			H04L-001/00	
US 5416785	A		7	G06F-011/14	
EP 508659	B1	E		H04L-001/00	Related to application EP 99200251
Designated States (Regional): DE ES FR GB IT					

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DE 69230012    E        H04L-001/00    Based on patent EP 508659
ES 2136073     T3       H04L-001/00    Based on patent EP 508659
JP 2000349857  A      7 H04L-029/08    Div ex application JP 9165829
JP 3155769     B2     4 H04L-029/08    Previous Publ. patent JP 4301940
JP 3428941     B2     5 H04N-001/32    Div ex application JP 9165829
                                       Previous Publ. patent JP 2000349857
```

...Abstract (Basic): When the **receiver** decides that the standard delay
    time will not be sufficient to print the buffer contents, it sends a
    retransmission request (PPR) for the **last   frame** . This process is
    repeated until normal flow control signals (RNR,RR) can be sent.
        ADVANTAGE - Allows slow printing unit to extend time it has for
    printing and hence maintain communication.
        Dwg.2/4

13/3,K/10   (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

008456188   **Image available**
WPI Acc No: 1990-343188/199046
XRPX Acc No: N90-262446
    Video **system with adaptive inter-frame prediction coding - discards
    frames to impose upper limit on transmission bit-rate from rapidly moving
    images**
Patent Assignee: NEC CORP (NIDE)
Inventor: TANOI T
Number of Countries: 006 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 397206	A	19901114	EP 90108951	A	19900511	199046	B
JP 2298184	A	19901210	JP 89117242	A	19890512	199104	
CA 2016641	A	19901112				199106	
JP 3006184	A	19910111	JP 89139224	A	19890602	199108	
US 5121202	A	19920609	US 90522538	A	19900511	199226	
EP 397206	A3	19930113	EP 90108951	A	19900511	199346	
CA 2016641	C	19950711	CA 2016641	A	19900511	199535	
EP 397206	B1	19970730	EP 90108951	A	19900511	199735	
DE 69031145	E	19970904	DE 631145	A	19900511	199741	
			EP 90108951	A	19900511		

Priority Applications (No Type Date): JP 89139224 A 19890602; JP 89117242 A
    19890512
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
EP 397206   A
    Designated States (Regional): DE GB IT
US 5121202   A   16 H04N-007/12
EP 397206   B1 E 22 H04N-007/32
    Designated States (Regional): DE GB IT
DE 69031145   E   H04N-007/32   Based on patent EP 397206
CA 2016641   C   H04N-007/12

    Video **system with adaptive inter-frame prediction coding - discards
    frames to impose upper limit on transmission bit-rate from rapidly moving
    images**

...Abstract (Basic): The digital **video** communication system operates in
    frame transmit or frame discard modes depending on transmission rate.

In a simple system, transmission rate may be limited by discarding
similarly **repeating frames** at transmitting **end** , with restoration
at **receiver** by repeatedly displaying a previous frame, which results
in motion jerkiness. Two motion vectors and...

...At the **receiver** , discarded frame positions are filled with recovered
earlier frames, which are motion-compensated if required following a
decision of second motion vector validity. The decision circuit
calculates absolute values of predicted error signal of frame period
following a discarded frame.
ADVANTAGE - Reduced jerkiness. (17pp Dwg.No.1/8)
...Abstract (Equivalent): A digital **video** communications system operating
in a flame transmit mode or a frame discard mode depending on...

...predicted error signal and the first and second motion vectors through a
transmission medium; a **receiver** (32') for receiving the interframe
predicted error signal and the first and second motion vectors through
the transmission medium; a decoding circuit (34'-36',60), operable
during the frame transmit mode, for summing the received interframe
predicted error signal and a delayed frame to produce a sum signal,
delaying the sum signal by a frame interval and delaying the delayed
sum signal according to the received first motion vector to produce the
delayed frame, and a variable delay circuit (38'-61-62) for introducing
no delays to the delayed sum signal during the frame transmit mode and
introducing a delay to the frame delayed sum signal according to the
received second motion vector during the frame discard mode.
Dwg.1/8
...Abstract (Equivalent): At the transmit end of a **video** communications
system, a first motion vector is derived from successive frames during
a frame transmit...

...the frame discard mode. The predicted error signal and the vectors are
transmitted to the **receiver** end of the system. The second motion
vector is derived at the transmit end from frames spaced apart by a
discarded frame, and at the receive end, original frames are recovered
from the predicted error signal as well as from the first and second
motion vectors, and the second motion vector is down-scaled and
evaluated whether it is valid or not. During frame discard mode, motion
compensation is performed on the recovered frame using the down-scaled
vector in response to a valid evaluation, but no compensation is
performed if invalid evaluation is made. Alternatively, the second
motion vector is derived at the transmit end from successive frames
using a larger block size than that used in the first motion vector. At
the receive end, the first motion vector as well as the error signal
are used in recovering original frames. During the frame discard mode,
the second vector is simply used for motion compensation. ADVANTAGE -
Interframe coding/decoding less liable to jerkiness.
(Dwg.1/8)
Title Terms: **VIDEO** ; SYSTEM; ADAPT; INTER; FRAME; PREDICT; CODE; DISCARDED
; FRAME; IMPOSE; UPPER; LIMIT; TRANSMISSION; BIT; RATE; RAPID; MOVE;
IMAGE

13/3,K/11   (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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008412964   **Image available**
WPI Acc No: 1990-299965/199040
XRPX Acc No: N90-230729

Video **disc for interleaved format recording - records outputs of set of TV cameras using 3 sequences of frames, blocks of 20 frames of each sequence being cyclically interleaved**
Patent Assignee: BRITISH BROADCASTING CORP (BRBC)
Inventor: ALLEN F J D; FINNEY A B
Number of Countries: 001   Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
GB 2229889	A	19901003	GB 904597	A	19900301	199040	B
GB 2229889	B	19930825	GB 904597	A	19900301	199334	
GB 2260463	B	19930825	GB 904597	A	19900301	199334	
			GB 9224798	A	19900301		

Priority Applications (No Type Date): GB 894906 A 19890303; GB 904597 A 19900301
Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2260463	B		H04N-005/85	Derived from application GB 904597
GB 2229889	B		H04N-005/85	

...Abstract (Basic): An interactive **video** mixing simulator system uses a **video** -disc on which the outputs of a batch of t.v. cameras are recorded in...

...much easier to mask. The blocks may include an extra frame such that the first **frame** of each block **repeats** the **last frame** of the preceding block in the same sequence, reducing the visible discontinuities on the jump...

...ADVANTAGE - Easy to edit relevant audio with **video** . (12pp Dwg.No.1/2)
...Abstract (Equivalent): An interactive **video** mixing simulator system comprising a videodisc having recorded thereon a plurality of **video** signals in a plurality of sequences in interleaved format, a videodisc player for replaying the recorded images such that one of the interleaved sequences is replayed at a time, and manually operable means for changing the selected sequence being replayed, such as to simulate a cut from one camera to another wherein in normal operation the player reads the frames from one sequence only and jumps over the frames of intervening sequences, and the system includes means, respective to the manually-operable means for changing the selected sequence, which means changes the jump size for one jump so as to read a different one of the sequences, and wherein each jump causes the player to jump over a substantially whole number of intervening frames.
    Dwg.1/1
    GB 2229889 B
    A videodisc having recorded thereon a plurality of sequences of frames with the sequences being interleaved, the interleaving comprising the interleaving of blocks, each of a plurality of frames from each sequence.
    Dwg.1/1
Title Terms: **VIDEO** ; DISC; INTERLEAVED; FORMAT; RECORD; RECORD; OUTPUT; SET; TELEVISION; CAMERA; SEQUENCE; FRAME; BLOCK; FRAME; SEQUENCE; CYCLIC; INTERLEAVED

13/3,K/12   (Item 12 from file: 350)

002398302
WPI Acc No: 1980-L4775C/198048
   Video **tape recorder with forward or reverse slow motion –
   intermittently replays successive frames which are buffered and read out
   several times each**
Patent Assignee: ANONYMOUS (ANON)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
RD 199020	A	19801110				198048	B

Priority Applications (No Type Date): RD 80199020 A 19801020

   Video **tape recorder with forward or reverse slow motion –
   intermittently replays successive frames which are buffered and read out
   several times each**

...Abstract (Basic): Slow motion replay in a **video** tape recorder (10) is
   produced by intermittently moving tape to replay a single frame which
   ...
...display (46) a number of times dependent on the degree of slowing.
   Reading of the **last   frame** of a **repeated** series is synchronised
   with the writing into the buffer of the next frame from the recorder.
Title Terms: **VIDEO** ; TAPE; RECORD; FORWARD; REVERSE; SLOW; MOTION;
   INTERMITTENT; REPLAY; SUCCESSION; FRAME; BUFFER; READ; TIME

   13/3,K/13   (Item 13 from file: 350)

002365079
WPI Acc No: 1980-H1539C/198033
   **Electro-optical small moment indicator – has optical system and swinging
   mirror for operation independent of thermal expansion errors**
Patent Assignee: LENGD GOSMETR (LEGO-R)
Inventor: BEZRYADIN N A; DMITRIEV D F; SHENFELD A Y A
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
SU 706720	A	19791231				198033	B

Priority Applications (No Type Date): SU 2649567 A 19780721

...Abstract (Basic): top terminates in a torsional compensation knob, the
   bottom is anchored and the mirror is **continued** downwards by a **frame
   ending** in an arester. The frame is the sensitive **receiver** of the
   measured moment.
      An inclined optical axis to the side of the suspension contains a
   light diode, condenser, diaphragm for aligning a beam on to the mirror
   from some angle, e.g. 45 deg., above, with corresp. receiving elements'
   along the reflected axis at 45 deg. below.

15/3,K/1   (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 Thomson Derwent. All rts. reserv.

014405540   **Image available**
WPI Acc No: 2002-226243/200228
XRPX Acc No: N02-173593
  **System for transmitting and displaying targeted advertising in TV
  distribution system using results of viewer-completed demographic survey**
Patent Assignee: WORLDGATE SERVICE INC (WORL-N); KUNKEL G K (KUNK-I);
  PERHAM D A (PERH-I); PIETTE S A (PIET-I)
Inventor: **KUNKEL G K ;   PERHAM D A ;   PIETTE S A**
Number of Countries: 095 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200158132	A2	20010809	WO 2001US3201	A	20010201	200228	B
AU 200134699	A	20010814	AU 200134699	A	20010201	200228	
US 20020056093	A1	20020509	US 2000179736	P	20000202	200235	
			US 2000191474	P	20000323		
			US 2001773263	A	20010201		
EP 1262057	A2	20021204	EP 2001906838	A	20010201	200280	
			WO 2001US3201	A	20010201		
BR 200108295	A	20030318	BR 20018295	A	20010201	200325	
			WO 2001US3201	A	20010201		
CN 1422496	A	20030604	CN 2001807707	A	20010201	200356	
MX 2002007553	A1	20030101	WO 2001US3201	A	20010201	200373	
			MX 20027553	A	20020802		

Priority Applications (No Type Date): US 2000191474 P 20000323; US
  2000179736 P 20000202; US 2001773263 A 20010201
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200158132 A2 E   20 H04N-000/00
   Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
   CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
   KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
   RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
   Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
   IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200134699 A   H04N-000/00   Based on patent WO 200158132
US 20020056093 A1   H04N-007/25   Provisional application US 2000179736

                               Provisional application US 2000191474
EP 1262057   A2 E   H04N-001/00   Based on patent WO 200158132
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI TR
BR 200108295 A   H04N-007/16   Based on patent WO 200158132
CN 1422496   A   H04N-007/16
MX 2002007553 A1   H04N-000/00000 Based on patent WO 200158132

  ... **WO 2001US3201**
Inventor: **KUNKEL G K** ...

  ... **PERHAM D A** ...

  ... **PIETTE S A**
International Patent Class (Main): **H04N-000/00** ...

  ... **H04N-000/00000** ...

... H04N-001/00 ...

... H04N-007/16 ...

... H04N-007/25

15/3,K/2   (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014065555   **Image available**
WPI Acc No: 2001-549768/200161
XRPX Acc No: N01-408408
  **Web pages navigating system for accessing interactive services through
  television, has guide mapping application to instruct browser application
  to navigate to object in web pages linked to currently selected object**
Patent Assignee: WORLDGATE SERVICE INC (WORL-N); AUGENBRAUN J E (AUGE-I);
  BOOTH R L (BOOT-I); FAUSTINE P M (FAUS-I); FLYNN M C (FLYN-I); JESUP R E
  (JESU-I); KUNKEL G K (KUNK-I); MATHIESEN M (MATH-I); OUTLAW K (OUTL-I);
  PIETTE S A (PIET-I); WESTERFER R W (WEST-I)
Inventor: AUGENBRAUN J E; BOOTH R L; FAUSTINE P M; FLYNN M C; JESUP R E;
  KUNKEL G K ; MATHIESEN M; OUTLAW K; **PIETTE S A** ; WESTERFER R W
Number of Countries: 095 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200144914	A1	20010621	WO 2000US33266	A	20001215	200161	B
AU 200120719	A	20010625	AU 200120719	A	20001215	200162	
US 20020023271	A1	20020221	US 99170791	P	19991215	200221	
			US 2000202849	P	20000508		
			US 2000736392	A	20001215		
EP 1247151	A1	20021009	EP 2000984039	A	20001215	200267	
			WO 2000US33266	A	20001215		
BR 200016774	A	20021203	BR 200016774	A	20001215	200305	
			WO 2000US33266	A	20001215		
MX 2002006053	A1	20021201	WO 2000US33266	A	20001215	200377	
			MX 20026053	A	20020617		

Priority Applications (No Type Date): US 2000202849 P 20000508; US 99170791
  P 19991215; US 2000736392 A 20001215
Patent Details:

Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200144914 A1 E   23 G06F-003/00
    Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
    CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
    KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
    RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
    Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
    IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200120719 A   G06F-003/00   Based on patent WO 200144914
US 20020023271 A1   H04N-007/173 Provisional application US 99170791

                                     Provisional application US 2000202849
EP 1247151   A1 E   G06F-003/00   Based on patent WO 200144914
    Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
    LI LT LU LV MC MK NL PT RO SE SI TR
BR 200016774 A   G06F-003/00   Based on patent WO 200144914
MX 2002006053 A1   G06F-003/00   Based on patent WO 200144914

  ...Inventor: **KUNKEL G K** ...

... **PIETTE S A** ; WESTERFER R W
...International Patent Class (Main): H04N-007/173
International Patent Class (Additional): H04N-007/10

15/3,K/3 **(Item 3 from file: 350)**
DIALOG(R)File 350:Derwent WPIX
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014037745 **Image available**
WPI Acc No: 2001-521958/200157
XRPX Acc No: N01-386850
  **Internet web pages interactive broadcasting on dedicated downstream
  channels e.g. cable television system**
Patent Assignee: WORLDGATE SERVICE INC (WORL-N); AUGENBRAUN J E (AUGE-I);
  GROSKY A (GROS-I); KUNKEL G K (KUNK-I); PLOTNICK B (PLOT-I); SEDNA PATENT
  SERVICES LLC (SEDN-N)
Inventor: AUGENBRAUN J E; GROSKY A; **KUNKEL G K** ; PLOTNICK B
Number of Countries: 095 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200145413	A1	20010621	WO 2000US33267	A	20001215	200157	B
AU 200122558	A	20010625	AU 200122558	A	20001215	200162	
US 20020026642	A1	20020228	US 99170792	P	19991215	200220	
			US 2000736393	A	20001215		
EP 1262067	A1	20021204	EP 2000986287	A	20001215	200280	
			WO 2000US33267	A	20001215		
BR 200016775	A	20021203	BR 200016775	A	20001215	200305	
			WO 2000US33267	A	20001215		
MX 2002006054	A1	20021201	WO 2000US33267	A	20001215	200377	
			MX 20026054	A	20020617		
US 20050149981	A1	20050707	US 99170792	P	19991215	200547	
			US 99170793	P	19991215		
			US 2000736393	A	20001215		
			US 200571426	A	20050303		

Priority Applications (No Type Date): US 99170793 P 19991215; US 99170792 P
  19991215; US 2000736393 A 20001215; US 200571426 A 20050303
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 200145413 A1 E 25 H04N-007/173
    Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA
    CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
    KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT
    RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
    Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
    IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200122558 A   H04N-007/173 Based on patent WO 200145413
US 20020026642 A1   H04N-007/173 Provisional application US 99170792

EP 1262067   A1 E   H04N-007/173 Based on patent WO 200145413
    Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
    LI LT LU LV MC MK NL PT RO SE SI TR
BR 200016775 A   H04N-007/173 Based on patent WO 200145413
MX 2002006054 A1   H04N-007/173 Based on patent WO 200145413
US 20050149981 A1   G06F-003/00 Provisional application US 99170792

                              Provisional application US 99170793
                              Div ex application US 2000736393

... **WO 2000US33267**
...Inventor: **KUNKEL G K** ; PLOTNICK B
...International Patent Class (Main): **H04N-007/173**
...International Patent Class (Additional): **H04N-005/445**

15/3,K/4   (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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012448679   **Image available**
WPI Acc No: 1999-254787/199921
Related WPI Acc No: 1997-513062; 2004-388079
XRPX Acc No: N99-189666
  Television interface access system using uniform resource locator
Patent Assignee: WORLDGATE SERVICE INC (WORL-N); WORLDGATE COMMUNICATIONS
  INC (WORL-N)
Inventor: AUGENBRAUN J E; GROSKY A; KRISBERGH H; **KUNKEL G** ; LEE J H E;
  KRISBERGH H M
Number of Countries: 079 Number of Patents: 010
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9915968	A1	19990401	WO 98US18492	A	19980917	199921	B
AU 9894739	A	19990412	AU 9894739	A	19980917	199934	
US 5961603	A	19991005	US 96630397	A	19960410	199948	
			US 97934985	A	19970922		
NO 200001392	A	20000518	WO 98US18492	A	19980917	200035	
			NO 20001392	A	20000316		
EP 1019828	A1	20000719	EP 98948098	A	19980917	200036	
			WO 98US18492	A	19980917		
CN 1282429	A	20010131	CN 98811421	A	19980917	200131	
JP 2001517877	W	20011009	WO 98US18492	A	19980917	200174	
			JP 2000513202	A	19980917		
AU 746478	B	20020502	AU 9894739	A	19980917	200238	
US 6477579	B1	20021105	US 96630397	A	19960410	200276	
			US 97934985	A	19970922		
			US 99386279	A	19990831		
MX 2000002807	A1	20020301	WO 98US18492	A	19980917	200362	
			MX 20002807	A	20000320		

Priority Applications (No Type Date): US 97934985 A 19970922; US 96630397 A
  19960410; US 99386279 A 19990831
Patent Details:
Patent No Kind Lan Pg   Main IPC   Filing Notes
WO 9915968   A1 E 40 G06F-012/00
    Designated States (National): AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE
    GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LV MD MG MK MN MW
    MX NO NZ PL RO RU SD SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW
    Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
    MC NL PT SE
AU 9894739   A   G06F-012/00 Based on patent WO 9915968
US 5961603   A   G06F-015/16 CIP of application US 96630397
NO 200001392   A   G06F-000/00
EP 1019828   A1 E   G06F-012/00 Based on patent WO 9915968
    Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
    LU MC NL PT SE
CN 1282429   A   G06F-012/00
JP 2001517877 W   58 H04N-007/173 Based on patent WO 9915968
AU 746478   B   G06F-012/00 Previous Publ. patent AU 9894739
                                       Based on patent WO 9915968
US 6477579   B1   G06F-015/16 CIP of application US 96630397